12/27/2010



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۵	To the Director of the U.S. Patent and Trausmark Office: Plear	se record the attached documents or the new address(es) below.
) []	1. Name of conveying party(ies)/Execution Date(s):	2. Name and address of receiving party(ies):
11KU 12/23/	(a) Deene A. Dafoe (b) Xuan Tang Execution Date(s): (a) and (b) December 17, 2010 Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No 3. Nature of conveyance: ☒ Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☐ Government Interest Assignment ☐ Executive Order 9424, Confirmatory License ☐ Other:	Name: EMC Corporation Internal Address: Street Address: 176 South Street Hopkinton, MA 01748 Country: USA
		Additional name(s) & address(es) attached? Yes No s document is being filed together with a new application B. Patent No.(s)
	Additional numbers atta	ached? ☐ Yes ⊠ No
	5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1
	Name: Muirhead and Saturnelli, LLC Internal Address: Street Address: 200 Friberg Parkway Suite 1001	7. Total fee (37 CFR 1.21(h) & 3.41)
	City: Westborough	8. Payment Information
	State: Massachusetts Zip: 01581 Fax Number: 508-898-8602	a. Credit Card Last 4 Numbers Expiration Date b. Deposit Account Number 05-0889 Authorized User Name Anne E. Saturnelli
	9. Signature: Anne E. Saturnelli, Reg. No. 41,290 Name of Person Signing Total number of pages including cover so Documents to be recorded (including cover sheet):	December , 2010 Date Sheet, attachments, and documents: 9

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PATENT REEL: 025615 FRAME: 0829

ASSIGNMENT

WHEREAS, wc, Kevin S. Labonte, Deene A. Dafoe, Xuan Tang, Utkarsh Vipul, Tianming Zhang, Shailesh Surendra Padwal and Muhamad Djunaedi, have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled TECHNIQUES FOR DETERMINING TRANSACTION PROGRESS, the specification of which:

[]	is being executed on even date herewith and is about to be filed in the United States Patent Office;
 [X]	was filed on September 30, 2010 as U.S. Application No. 12/924,568;
[]	was patented under U.S. Patent Noon

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein:

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the

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giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date:	
	Inventor's Signature
Print full name of first inventor:	Kevin S. Labonte
Residence:	7 John Drive
	North Grafton, MA 01536
Citizenship:	USA
Mailing Address:	Same
employee identification card; [_] to be the person who	2010, then personally appeared before me the above- through satisfactory evidence of identification driver's license; [] (other) se name is subscribed to the foregoing Assignment and same as his/her free act and deed for the purposes therein
	Notary Public
	Print Name:
	My Commission expires:

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Date: Dec 17, 2010	Inventor's Signature
Print full name of second inventor:	Deene A. Dafoe
Residence:	4 Harris Avenue
	Northborough, MA 01532
Citizenship:	USA
Mailing Address:	Same
employee identification card; driver to be t	hen personally appeared before me the above- satisfactory evidence of identification 's license; [] (other) he person whose name is subscribed to the he/she executed the same as his/her free act and
	Kristina a White
•	Kustina a White Notary Public
	Print Name: Kristina A. White
	My Commission expires:

Datc: 12/17/2010	Inventor's Signature
Print full name of third inventor:	Xuan Tang
Residence:	6 Prestwick Drive
	Hopkinton, MA 01748
Citizenship:	P.R. China
Mailing Address:	Same
named Xuan Tang known to me through sate [] drive to be	then personally appeared before me the above-
	Print Name: Kristina A. White
	My Commission expires:
	The state of the s

	Inventor's Signature
Print full name of fourth inventor:	Utkarsh Vipul
Residence:	297 Tumpike Road, Apt. 801
	Westborough, MA 01581
Citizenship:	India
Mailing Address:	Same
named Utkarsh Vipul known to me thro	010, then personally appeared before me the above-
named Utkarsh Vipul known to me thro [] employee identification card; [] d	010, then personally appeared before me the above-
named Utkarsh Vipul known to me through the card; [] d	010, then personally appeared before me the above- ough satisfactory evidence of identification driver's license; [] (other)
named Utkarsh Vipul known to me through the comployee identification card; [] described to the complex described to the	010, then personally appeared before me the above- ough satisfactory evidence of identification lriver's license; [] (other) to be the person whose name is subscribed to the d that he/she executed the same as his/her free act and

Date:	
	Inventor's Signature
Print full name of fifth inventor:	Tianming Zhang
Residence:	9 Cardinal Circle
	Shrewsbury, MA 01545
Citizenship:	USA
Mailing Address:	Same
On this day of, and Tianming Zhang known to me employee identification card;	2010, then personally appeared before me the above-through satisfactory evidence of identification driver's license: [] (other)
	to be the person whose name is subscribed to the ed that he/she executed the same as his/her free act and
	Notary Public
	Print Name:
	My Commission expires:

Date:	_
	Inventor's Signature
Print full name of sixth inventor:	Shailesh Surendra Padwal
Residence:	3 Royal Crest Drive #12
	Marlborough, MA 01752
Citizenship:	India
Mailing Address:	Same
named Shailesh Surendra Padwal kno [] employee identification card; []	to be the person whose name is subscribed to the ed that he/she executed the same as his/her free act and
	Notary Public
	Print Name:
	My Commission expires:

	Inventor's Signature
Print full name of seventh inventor:	Muhamad Djunaedi
Residence:	15 Washington Road
	Marlborough, MA 01532
Citizenship:	Indonesia
Mailing Address:	Same
COUNTY OF	10. then personally appeared before me the above
On thisday of, 20 named Muhamad Djunaedi known to m [] employee identification card; [] dr	10, then personally appeared before me the above- through satisfactory evidence of identification tiver's license; [] (other)
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On this day of, 20 named Muhamad Djunaedi known to m employee identification card; [] dr to Coregoing Assignment and acknowledged	10, then personally appeared before me the above- te through satisfactory evidence of identification tiver's license; [] (other) be the person whose name is subscribed to the that he/she executed the same as his/her free act and

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